California biosolids trends for 2009

The tonnages of biosolids generated and biosolids used, disposed, and stored, continued to decline in calendar year 2009 from previous calendar years. This is due to several factors including the increasing efficiencies of anaerobic digesters and drying bed operations, the increasing use of heat dryers (where additional organic matter is volatilized), and the fact that a lot of projects involving the dredging of old lagoons and removal of old stockpiles had been completed in previous years.

The percentages of California biosolids that were land applied, either as Class B or Class A, dropped in 2009, while the percentages landfilled or used as alternative daily cover increased. Tonnages going to Arizona for land application, landfilling, and composting, increased, with over 100,000 dry metric tons or more than 15% going to Arizona in 2009. Small amounts (less than 1%) were sent to Nevada, Oregon, and Cabazon lands for landfilling, ADC, or composting.

The tonnages of heat-dried biosolids increased, with more going for use as fuel in cement kilns. A significant tonnage of this was applied as Class B or sent on to composters because the operations could not demonstrate Class A. Heat dried biosolids at the new Toland landfill heat dryer in Ventura County were used as ADC in 2009.

Tonnages of biosolids going to incineration and surface disposal remained the same as in the past 5 years.

The City of Los Angeles injected 2,000 dmt from its Terminal Island treatment plant and 1,000 dmt from its Hyperion plant at the Terminal Island Renewable Energy deep well injection project, to depths greater than 5,000 feet.

Biosolids generated in 2009:	615,000 dry metric tons (100% dry weight basis)		
Placed in long-term treatment or drying:	45,000		
Used or disposed:	661,000		
By use:			
Land applied:	402,000		61%
Class A:		272,000	41%
Compost:		170,000	26%
Thermophilically digested:		65,000	10%
Alkali treated: 3%		21,000	3%
Heat dried:		7,000	1%
Air dried:		9,000	1%
Class B:		130,000	20%
Landfilled:	200,000		30%
Alternative daily cover or final cover:		110.000	17%
Fill:		90,000	13%
Surface disposal:	22,000		3.3%
Incinerated:	19,000		2.8%
Use as fuel for cement kilns:	14,000		2.1%
Deep well injection:	3,000		0.5%
Other:	1,000		0.2%

Top dozen destinations (note: the final destination of most compost is not reported):

Kern:	180,000		= 27%
To composters (for land appl. in other counties*):		97,000	
Class A land application:		81,000	
Class B land application:		2,000	
Yuma:	82,000		= 12.4%
Class B land application:		71,000	
Landfilling:		11,000	
Sacramento:	44,000		= 6.6%
Surface disposal:		20,000	
Class B land application:		18,000	
Class A (heat dried) land application:		6,000	
San Bernardino:	43,500		= 6.6%
To composters:		30,000	
To heat dryer for fuel:		10,000	
Class A land application:		3,500	
Los Angeles:	38,300		= 5.7%
Landfilling:		35,000	
To composters:		3,300	
Santa Clara:	38,000		= 5.7%
ADC, landfilling:		32,000	
Incineration:		6,000	
Merced:	31,000		= 4.7%
Class B land application:		18,000	
To composter:		13,000	
Solano:	30,000		= 4.5%
Class B land application		8,000	
Landfilling:		22,000	
San Diego:	27,300		= 4.1%
Landfilling, ADC		27,000	
Class A land application		300	
Alameda:	18,000		= 2.7%
Landfilling:		15,000	
Class B land application:		2,000	
Class A land application:		1,000	
La Paz:	18,000		= 2.7%
To composter:		16,000	
Landfilling:		2,000	
Ventura:	12,000		= 1.87%
Landfill, ADC		11,000	
Class A land application:		1,000	